WHAT IS CLAIMED IS:

1.   A video data processing method that generates a trick play stream with an altered reproducing speed and reproducing direction from a video stream coded using frame-to-frame prediction, comprising:

a step of selectively extracting intra-frame coded pictures from the video stream, conforming to the speed and direction of the trick play stream to be reproduced;

an analysis step of analyzing a coding parameter of the extracted intra-frame coded pictures;

a modification step of modifying the coding parameter according to said speed and direction; and

a generating step of generating the trick play stream by generating repeat pictures displaying content identical to the extracted intra-frame coded pictures and adding the repeat pictures following the intra-frame coded pictures with the modified coding parameter, the intra-frame coded pictures with the modified coding parameter being selected in their order of data transfer according to said reproducing speed and reproducing direction.

2.   The video data processing method of claim 1, wherein:

the analysis step analyzes a control parameter of the extracted intra-frame coded pictures related to a decoder buffer; and

the modification step modifies the control parameter related to the decoder buffer so that the transferred trick play stream does not produce a failure of the decoder buffer.

3.   The video data processing method of claim 2, wherein the modification step derives the control parameter of the extracted intra-frame coded pictures related to the decoder buffer from the analyzed parameters for decoder buffer

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control, a transfer rate of the video stream, and a transfer rate of the generated trick play stream.

4. The video data processing method of claim 2, wherein the modification step sets the control parameter of the extracted intra-frame coded pictures related to the decoder buffer to an arbitrary fixed value independent of code structures of the video stream and the generated trick play stream.

5. The video data processing method of claim 1, further comprising a step of adjusting a quantity of code generated in the trick play stream by stuffing to match a target transfer rate when the quantity of code is predicted to underrun the target transfer rate, and temporarily raising the target transfer rate when the quantity of code is predicted to overrun the target transfer rate.

6. A video data processing apparatus that generates a trick play stream with an altered reproducing speed and reproducing direction from a video stream coded using frame-to-frame prediction, comprising:
    means for selectively extracting intra-frame coded pictures from the video stream, conforming to the speed and direction of the trick play stream to be reproduced;
    analysis means for analyzing a coding parameter of the extracted intra-frame coded pictures;
    modification means for modifying the coding parameter according to said speed and direction; and
    generating means for generating the trick play stream by generating repeat pictures displaying content identical to the extracted intra-frame coded pictures and adding the repeat pictures following the intra-frame coded pictures with the modified coding parameter, the intra-frame coded

pictures with the modified coding parameter being selected in their order of data transfer according to said reproducing speed and reproducing direction.

7.   The video data processing apparatus of claim 6, wherein:
    the analysis means analyzes a control parameter of the extracted intra-frame coded pictures related to a decoder buffer; and
    the modification means modifies the control parameter related to the decoder buffer so that the transferred trick play stream does not produce a failure of the decoder buffer.

8.   The video data processing apparatus of claim 7, wherein the modification means derives the control parameter of the extracted intra-frame coded pictures related to the decoder buffer from the analyzed parameters for decoder buffer control, a transfer rate of the video stream, and a transfer rate of the generated trick play stream.

9.   The video data processing apparatus of claim 7, wherein the modification means sets the control parameter of the extracted intra-frame coded pictures related to the decoder buffer to an arbitrary fixed value independent of code structures of the video stream and the generated trick play stream.

10. The video data processing apparatus of claim 6, further comprising a means for adjusting a quantity of code generated in the trick play stream by stuffing to match a target transfer rate when the quantity of code is predicted to underrun the target transfer rate, and temporarily raising the target transfer rate when the quantity of code is predicted to overrun the target transfer rate.